

# Project Management

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## Project Resources

### Questions For Next Meeting

ANSWERED: How should the plugins interface be? Just simple or any suggestions from Daniel?



ANSWERED: Should primary aim be to just clear the overlaps or that we want users to manually trigger displacement, or should it be automatic when overlaps are detected? Working on building code for that atm



ANSWERED: How can the plugin be packaged?(for manual install or submitting to the QGIS Plugin Repository?)



ANSWERED: Do we need unit tests for key functions? (like detect\_overlaps(), apply\_displacement(), etc.)



ANSWERED: Do we need to make the code QGIS version

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#### Link to this board

<https://trello.com/b/kLvMM9GU>

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#### Show QR code

agnostic? ( both QGIS 3.28 and QGIS 3.36+?) Or just the latest version?



ANSWERED: Which is the most effective/optimal way to detect overlaps; checking geometries, bounding boxes, or spatial indices?



ANSWERED: symmetricall (both routes shift) or asymmetricall (only the newer route moves) displacement? To build the code around



ANSWERED: Which would be better? Allowing the user to select multiple layers, or just one at a time?



ANSWERED: What happens if snapping causes self-intersections or invalid geometries? Should we validate the result after snapping?



ANSWERED: Should snapping be applied globally or only where overlaps are detected?



Question for atif and sunil : How does daniels script perform with large datasets (1000+ features)? Should we

add spatial indexing or chunking for better speed? Let me know

ANSWERED: Should changes be written to a new memory layer or allow overwriting the original layer (with a warning)? (This is if we successfully implement the required changes)



ANSWERED: Would users benefit from a progress bar or status messages during each stage (snap → simplify → offset)?



## To Do

submit assessment 4

⌚ 27 May

submit assignment 5

⌚ 8 Jun

Exchange each other's codes  
and understand it to find the  
most optimal ones

Make sure offset distance is in  
meters and not pixels,  
important.

If snapping is applied globally  
then figure out how to do it,  
maybe pull dataset from ptv

improvements fo zeehan:

≡ 📎 1

✓ improvements for Sunil

⌚ ≡ 📎 1

## Doing

understanding nyall solution



✓ understanding daniel solution



improvements for Atif



## Done

Daniel to provide test data



✓ Submit assignment 1

6 Apr

✓ present code to nyall



15 Apr



✓ ensure we understand qgis

✓ confirm meeting industry partner

15 Apr



✓ develop a way to share the code among team members

11 Apr



✓ how you add an extension

✓ enhanced code for the above

- added, lets see
- ✓ Build the plugin and introduce it to QGIS
- ✓ workshop meeting/brainstorming our solution
- Develop code to continue on with Daniel's and integrate it to the plugin
- ✓ stack offsets proportionally for smarter offset stacking, lets build a spatial index and detect overlaps by comparing bounding boxes or shared vertices.
- ✓ lets offset overlapping lines proportionally and keep them centered?
- ✓ enhancing code daniel was working on by grouping attributes for better offsetting by adding an input field to the dialog for a "Group by field" and adjust logic to compare geometries within groups.
- understanding how a plug-in is created in QGIS
  - ☰
  - AD
- ✓ Do we ignore very small overlaps as noise or clean them too?
  - 11 Apr - 17 Apr
  - Z
- ✓ what are the overlaps based off? is it their geometries being

- Is it required to have backups of the original layers before cleaning the overlaps, if yes, how do we do it?
    - 18 Apr 1 DP
  - What can we do to make it easier to clean overlaps other than making parallel routes
    - 11 Apr DP
  - Is it required to have backups of the original layers before cleaning the overlaps, if yes, how do we do it?
    - 15 Apr Z
  - How to integrate Google Maps with qgis for better visual representation?
    - 15 Apr Z
  - Is it required to have backups of the original layers before cleaning the overlaps, if yes, how do we do it?
    - 17 Apr Z
  - What can we do to make it easier to clean overlaps other than making parallel routes
    - 13 Apr Z
  - assessemt 2
    - 27 Apr
  - scrum meeting 2
    - 19 Apr
  - scrum meeting 1
- 
- Trello Tip: ✨ Be proud! You're done! For all your finished

